

## REMARKS

This Amendment is submitted in reply to the non-final Office Action mailed on February 2, 2006. A petition for a one month extension of time. The Director is authorized to charge \$120.00 for the petition for extension of time or any additional fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-530 on the account statement.

Claims 1-19 are pending in this application. In the Office Action, Claims 1-6 are rejected under 35 U.S.C. §112, first paragraph, Claims 7-16 and 18-19 are rejected under 35 U.S.C. §112, second paragraph, and Claims 1-3, 4-11, 13 and 14-19 are rejected under 35 U.S.C. §103. In response Claim 7 has been amended. This amendment does not add new matter. In view of the amendment and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, Claims 1-6 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Patent Office alleges that phrase “obtained from the culture of a microorganism” is not described in the specification sufficiently as to how the culture can be obtained or what microorganisms could be used. Applicants respectfully disagree and submit that the skilled artisan would understand that Applicants had possession of the claimed invention at the time of filing the application.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. There is no *in haec verba* requirement. Claim limitations can be supported through express, implicit or inherent disclosure. In fact, a patent need not teach, and preferably omits, what is well known in the art. See, MPEP 2164.01.

The specification explicitly teaches that the biomass can be “obtained from the culture of a microorganism.” See, specification, page 2, lines 25-29 and Abstract. Moreover, the specification teaches that the invention relates, in part, to a process for preparing such an oil by bringing a carrier oil into contact with a biomass obtained from the culture of a microorganism, in particular a fungus or a microalga containing the acids ARA, DHGLA, DHA or EPA. *Id.* It is not necessary to teach the skilled artisan how to culture the micro-organisms to obtain the biomass because this readily understood using conventional procedures. One skilled in the art

could also readily determine relevant micro-organisms in view of the teachings of the specification. Based on at least these noted reasons, Applicants believe that Claims 1-6 fully comply with 35 U.S.C. §112, first paragraph.

Accordingly, Applicants respectfully request that the rejection of Claims 1-6 under 35 U.S.C. §112, first paragraph, be withdrawn.

In the Office Action, Claims 7-16 and 18-19 is rejected under 35 U.S.C. §112, second paragraph, as allegedly being incomplete for omitting essential steps. Specifically, the Patent Office alleges that the omitted essential steps include: removal of the biomass by centrifugation, removal of insoluble materials by fine filtration and removal of volatile malodorous materials and Claim 7 includes the phrase “without purification” thereby preventing the essential steps from being added to Claim 7.

In response Applicants have amended Claim 7 to remove the phrase “without purification.” Nevertheless, Applicants respectfully disagree with the Patent Office’s assertion regarding the term “purification” and believe it is based on a misunderstanding of the present invention. For example, the phrase “without purification” was to emphasize the distinction over the prior art (discussed in the specification) in which hexane is used to extract the fungal oils and in turn has to be removed before the oils can be incorporated into food products. Based on at least these noted reasons, Applicants believe that Claims 7-16 and 18-19 fully comply with 35 U.S.C. §112, second paragraph.

Accordingly, Applicants respectfully request that the rejection of Claims 7-16 and 18-19 under 35 U.S.C. §112, second paragraph, be withdrawn.

In the Office Action, Claims 1-3, 5-7, 9 and 12-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,177,580 to Timmermann et al. (“*Timmermann*”) in view of EP 0726321 to Barclay (“*Barclay*”). Applicants believe this rejection is improper and respectfully traverse it for at least the reasons set forth below.

Independent Claims 1 and 7 recite, in part, fungal oils that are obtained from biomass obtained from a culture of microorganisms. In contrast, Applicants respectfully submit that there is no suggestion or motivation to combine the cited references to obtain the present claims, and even if combinable, all of the claimed elements are not taught or suggested by the cited references.

Applicant respectfully submits that there is no suggestion or motivation to combine the cited references to obtain the present claims. For example, *Timmermann* relates to the production of synthetic triacylglycerols rich in conjugated linoleic acid residues. See, *Timmermann*, column 2, lines 19-41. As admitted by the Patent Office (see, Office Action, page 4, lines 7-8), there is no reference to LC-PUFA in *Timmermann*. *Barclay* relates to obtaining arachidonic acid from biomass produced by culturing a specific micro-organism. See, *Barclay*, page 3, lines 9-12. One having ordinary skill in the art would understand that the synthetic chemical route taught by *Timmermann* cannot be applied to *Barclay*. For example, there is no reference to any biomass or microorganisms in *Timmermann*. In addition, *Timmermann* teaches a required process step of heating the reaction mixture to a temperature of 180-240 °C. See, *Timmermann*, column 4, lines 5-14. Applicants respectfully submit that such a heating application would render any microorganisms from *Barclay* innocuous and unable to perform its intended function as taught by *Barclay*. The Patent Office provides no support as to how this could be done. Consequently *Timmermann* actually teaches away from using any microorganisms. Accordingly, one having ordinary skill in the art would not be motivated to combine *Timmermann* and *Barclay* to arrive at the present claims.

Applicant also respectfully submits that, even if combinable, the cited references do not disclose or suggest all of the claimed elements. For example, the cited references fail to disclose or suggest the long-chain polyunsaturated fatty acids are incorporated such that at least 60% by weight of the long-chain polyunsaturated fatty acids present in the biomass are present in the oil but that less than 10% of phosphorus that is present in the biomass is present in the oil as required, in part, by Claim 1. Further, the cited references fail to disclose or suggest transferring the long-chain polyunsaturated fatty acid(s) in the form of triacylglycerols to the carrier as required, in part, by Claim 7. Moreover, the Patent Office has failed to provide support for every element of Claims 1 and 7 from the cited references.

Applicants respectfully submit that the Patent Office has improperly applied hindsight reasoning by selectively piecing together teachings of each of the references in an attempt to recreate what the claimed invention discloses. As the Federal Circuit explained, “the mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.” *In re*

*Fritch*, at 1783-17. One cannot use “hindsight reconstruction to pick and choose among isolated disclosures in the prior art” to re-create the claimed invention. *In re Fine*, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988).

For at least the reasons discussed above, the combination of *Timmermann* and *Barclay* is improper. Moreover, even if combinable, the cited references do not teach, suggest, or even disclose all of the elements of independent Claims 1 and 7 and Claims 2-3, 5-6, 9 and 12-19 that depend from these claims, and thus, fail to render the claimed subject matter obvious.

Accordingly, Applicants respectfully request that the obviousness rejection with respect to Claims 1-3, 5-7, 9 and 12-19 be reconsidered and the rejection be withdrawn.

Claims 9-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Timmermann* in view of *Barclay* and U.S. Patent No. 5,773,075 to Todd (“*Todd*”). Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Timmermann* in view of *Barclay* and U.S. Patent No. 5,840,945 to Tsujiwaki (“*Tsujiwaki*”). Applicants respectfully submit that the patentability of Claim 7 as previously discussed renders moot the obviousness rejection of Claims 9-10 that depend from Claim 7. In this regard, the cited art fails to teach or suggest the elements of Claims 9-10 in combination with the novel elements of Claim 7.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same.

Respectfully submitted,

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